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2008 MAR 12 PM 2:37

01-0240

March 11, 2008

Barry R. Stephens, Director
TDEC Division of Air Pollution Control
9th Floor, L&C Annex
401 Church Street
Nashville, TN 37243-1531

Re: Notification for Designation of New Filament Winding Operations in Oak Ridge as an Insignificant Activity or Insignificant Emission Unit

Dear Mr. Stephens:

Two filament winding machines are scheduled to be installed at our facility in the coming months to manufacture composite rotor tubes. Preliminary calculations indicate that the emissions from this new process equipment will be less than 5 tons per year of each air contaminant, and less than 1,000 pounds per year of each hazardous pollutant. We have discussed the addition of this new process with Steve Simpson (TN Air Pollution Control Board) and were advised to submit a notification for designation of this source as an insignificant activity or insignificant emission unit as described in Rule 1200-3-9.04(a).

Enclosed are the following completed forms that Mr. Simpson advised us to use for documenting the information you will need to make your determination.

- Permit Application Form (Form #CN-0730-APC 20)
- Process Or Fuel Burning Source Description Form (Form #CN-0741-APC 21 & 24)
- Emission Point Description Form (Form #CN-0742-APC 22)

Installation If you have any questions or need additional information, please contact me at 865-481-7317.

Sincerely,

Michael G. Knight
Manager, ES&H and Performance Assurance

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF AIR POLLUTION CONTROL

9th Floor, L & C Annex
401 Church Street
Nashville, TN 37243-1531
Telephone: (615) 532-0554
FAX: (615) 532-0614

NOT TO BE USED FOR TITLE V APPLICATIONS

2008 MAR 12 PM 2:38

PERMIT APPLICATION

APC 20

PLEASE TYPE OR PRINT AND SUBMIT IN DUPLICATE FOR EACH EMISSION SOURCE. ATTACH APPROPRIATE SOURCE DESCRIPTION FORMS.

1. ORGANIZATION'S LEGAL NAME Alliant Techsystems Inc.			/// FOR	APC COMPANY--POINT NO. 01-0240-01
2. MAILING ADDRESS (ST/RD/P.O. BOX) 767 Boeing Road			/// APC	APC LOG/PERMIT NO. 61816
CITY Oak Ridge	STATE TN	ZIP CODE 37830		PHONE WITH AREA CODE (865) 294-0300
3. PRINCIPAL TECHNICAL CONTACT Mike Knight				PHONE WITH AREA CODE (865) 481-7317
4. SITE ADDRESS (ST/RD/HWY) 767 Boeing Road				COUNTY NAME Anderson
CITY OR DISTANCE TO NEAREST TOWN Oak Ridge		ZIP CODE 37830		PHONE WITH AREA CODE (865) 481-7317
5. EMISSION SOURCE NO. (NUMBER WHICH UNIQUELY IDENTIFIES THIS SOURCE) USEC-ATK-08-01		PERMIT RENEWAL YES ( ) NO (X)		

6. BRIEF DESCRIPTION OF EMISSION SOURCE

Filament winding machine.

7. TYPE OF PERMIT REQUESTED

CONSTRUCTION (X)	STARTING DATE 03/21/08	COMPLETION DATE 05/19/08	LAST PERMIT NUMBER	EMISSION SOURCE REFERENCE NUMBER
OPERATING ( )	DATE CONSTRUCTION STARTED	DATE COMPLETED	LAST PERMIT NUMBER	EMISSION SOURCE REFERENCE NUMBER
LOCATION TRANSFER ( )	TRANSFER DATE		LAST PERMIT NUMBER	EMISSION SOURCE REFERENCE NUMBER

ADDRESS OF LAST LOCATION

8. DESCRIBE CHANGES THAT HAVE BEEN MADE TO THIS EQUIPMENT OR OPERATION SINCE THE LAST CONSTRUCTION OR OPERATING PERMIT APPLICATION.

9. SIGNATURE (APPLICATION MUST BE SIGNED BEFORE IT WILL BE PROCESSED) David L Gilbert		**DATE** 3/11/2008
10. SIGNER'S NAME (TYPE OR PRINT) David Gilbert	**TITLE** Project Manager	**PHONE WITH AREA CODE** (865) 425-6562

(OVER)

CN-0730

RDA 1298

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PROCESS OR FUEL BURNING SOURCE DESCRIPTION

APC21(& 24)

PLEASE TYPE OR PRINT, SUBMIT IN DUPLICATE AND ATTACH TO THE PERMIT APPLICATION.

1. ORGANIZATION NAME		/ / / FOR	APC COMPANY-POINT NO.
Alliant Techsystems Inc.			01-0240-01
2. EMISSION SOURCE NO. (AS ON PERMIT APPLICATION)	SIC CODE	/ / / APC	APC PERMIT/LOG NO.
USEC-ATK-08-01	3999		61816

3. DESCRIPTION OF PROCESS OR FUEL BURNING UNIT

The filament winding machines wind continuous fibers soaked in a thermosetting resin onto a mandrel surface to form hollow composite tubes. After winding, heated liquid is circulated through the mandrel to promote curing. The cured composite tubes are extracted from the mandrels and machined on lathes (equipped with vacuum systems) to achieve the desired size. Routine operations also require the use of mold release agents, ultrasonic cleaning agents and isopropyl alcohol.

4. NORMAL OPERATION: →	HOURS/DAY	DAYS/WEEK	WEEKS/YEAR	DAYS/YEAR
	8	5	52	
5. PERCENT ANNUAL THROUGHPUT: →	DEC.-FEB.	MARCH-MAY	JUNE-AUG.	SEPT.-NOV.
	25%	25%	25%	25%

6. TYPE OF PERMIT APPLICATION	(CHECK BELOW ONE ONLY)
PROCESS SOURCE: APPLY FOR A SEPARATE PERMIT FOR EACH SOURCE. (CHECK AT RIGHT, AND COMPLETE LINES 7, 8, 13, AND 14).	(X)
PROCESS SOURCE WITH IN-PROCESS FUEL: PRODUCTS OF COMBUSTION CONTACT MATERIALS HEATED. APPLY FOR A SEPARATE PERMIT FOR EACH SOURCE. (CHECK AT RIGHT, AND COMPLETE LINES 7, 8, AND 10 THROUGH 14)	( )
NON-PROCESS FUEL BURNING SOURCE: PRODUCTS OF COMBUSTION DO NOT CONTACT MATERIALS HEATED. COMPLETE THIS FORM FOR EACH BOILER OR FUEL BURNER AND COMPLETE AN EMISSION POINT DESCRIPTION FORM (APC 22) FOR EACH STACK. (CHECK AT RIGHT, AND COMPLETE LINES 9 TO 14)	( )

7. TYPE OF OPERATION: CONTINUOUS ,	BATCH	NORMAL BATCH TIME	NORMAL BATCHES/DAY
(X)	( )		

8. PROCESS MATERIAL INPUTS AND IN-PROCESS SOLID FUELS	DIAGRAM* REFERENCE	INPUT RATES (POUNDS/HOUR) DESIGN	ACTUAL	/ /	(FOR APC USE ONLY) SCC CODE
A. Isopropyl Alcohol (mandrel prep)		.19		/ /	
B. Isopropyl Alcohol (cleaning station)		.925		/ /	
C. Paraffin Hydrocarbon Solvent		.1		/ /	
D. Dynasolve M35		.55		/ /	
E. Epoxy Resin		17.3		/ /	
F. Epoxy Hardener		4.5		/ /	
G. Frekote (release agent)		.1		/ /	
TOTALS		23.7		/ /	

* A SIMPLE PROCESS FLOW DIAGRAM MUST BE ATTACHED.

(OVER)

9. BOILER OR BURNER DATA: (COMPLETE LINES 9 TO 14 USING A SEPARATE FORM FOR EACH BOILER)

BOILER NUMBER	STACK NUMBER**	TYPE OF FIRING***	RATED BOILER HORSEPOWER	RATED INPUT CAPACITY (10^6 BTU/HR)	OTHER BOILER RATING (SPECIFY CAPACITY AND UNITS)

BOILER SERIAL NO.	DATE CONSTRUCTED	DATE OF LAST MODIFICATION (EXPLAIN IN COMMENTS BELOW).

** BOILERS WITH A COMMON STACK WILL HAVE THE SAME STACK NUMBER.
*** CYCLONE, SPREADER (WITH OR WITHOUT REINJECTION), PULVERIZED (WET OR DRY BOTTOM, WITH OR WITHOUT REINJECTION), OTHER STOKER (SPECIFY TYPE), HAND FIRED, AUTOMATIC, OR OTHER TYPE (DESCRIBE BELOW IN COMMENTS).

10. FUEL DATA: (COMPLETE FOR A PROCESS SOURCE WITH IN-PROCESS FUEL OR A NON-PROCESS FUEL BURNING SOURCE)

PRIMARY FUEL TYPE (SPECIFY) | STANDBY FUEL TYPE(S) (SPECIFY)

FUELS USED	ANNUAL USAGE	HOURLY USAGE		%	%	BTU VALUE		(FOR APC ONLY)
		DESIGN	AVERAGE	SULFUR	ASH	OF FUEL		SCC CODE
NATURAL GAS:	10^6 CUFT	CUFT	CUFT	/ / / / / / / /	/ / / / / /	1,000		
#2 FUEL OIL:	10^3 GAL	GAL	GAL		/ / / / / /			
#5 FUEL OIL:	10^3 GAL	GAL	GAL		/ / / / / /			
#6 FUEL OIL:	10^3 GAL	GAL	GAL		/ / / / / /			
COAL:	TONS	LBS	LBS					
WOOD:	TONS	LBS	LBS	/ / / / / / / /	/ / / / / /			
LIQUID PROPANE:	10^3 GAL	GAL	GAL	/ / / / / / / /	/ / / / / /	85,000		
OTHER (.SPECIFY TYPE & UNITS.):								

11. IF WOOD IS USED AS A FUEL, SPECIFY TYPES AND ESTIMATE PERCENT BY WEIGHT OF BARK

12. IF WOOD IS USED WITH OTHER FUELS, SPECIFY PERCENT BY WEIGHT OF WOOD CHARGED TO THE BURNER.

13. COMMENTS

Due to the simplicity of the process, no flow diagrams will be submitted.

The basic process consists of the following steps:
Mandrel preparation – mandrel is cleaned using isopropyl alcohol, paraffin hydrocarbon solvent, and rags
Winding – fiber moistened in the epoxy resin is wound around the mandrel spindle to form tubes
Curing – electrical energy is transferred to liquid then circulated within the mandrel to cure the resin soaked fibers that have been wound onto the mandrel; curing stations are enclosed and serviced by 40 cfm fans for odor control.
Extraction – mold release is applied to the finished product for removal from the mandrel
Machining – final product is sized using lathes (lathes serviced by local vacuum system for dust collection in drums)
Cleaning – final product is cleaned using isopropyl alcohol and rags; epoxy removal from steel parts through a closed loop ultrasonic cleaning system (ultra sound, heat and dynosolve)

14. SIGNATURE | **DATE**

David Gilbert | 3/11/2008

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EMISSION POINT DESCRIPTION

APC 22

PLEASE TYPE OR PRINT AND SUBMIT IN DUPLICATE FOR EACH STACK OR EMISSION POINT.
ATTACH TO THE PERMIT APPLICATION.

1. ORGANIZATION NAME Alliant Techsystems Inc.			/ / / FOR	APC COMPANY POINT NO. 01-0240-01
2. EMISSION SOURCE NO. (FROM APPLICATION) USEC-ATK-08-01		FLOW DIAGRAM POINT NUMBER	/ / / APC	APC SEQUENCE NO. 61816
3. LOCATION: →	LATITUDE 36deg 00min 30sec N	LONGITUDE 84deg 14min 00secW	UTM VERTICAL	UTM HORIZONTAL
4. BRIEF EMISSION POINT DESCRIPTION (ATTACH A SKETCH IF APPROPRIATE): Filament winding machine				DISTANCE TO NEAREST PROPERTY LINE (FT) 1000

COMPLETE LINES 5 AND 6 IF DIFFERENT FROM THAT ON THE PROCESS OR FUEL BURNING SOURCE DESCRIPTION (APC 21)

5. NORMAL OPERATION: →	HOURS/DAY	DAYS/WEEK	WEEK/YEAR		DAYS/YEAR
6. PERCENT ANNUAL THROUGHPUT: →	DEC.-FEB.	MARCH-MAY	JUNE-AUG.		SEPT.-NOV.
7. STACK OR EMISSION POINT DATA: →	HEIGHT ABOVE GRADE (FT)	DIAMETER (FT)	TEMPERATURE (°F)	% OF TIME OVER 125°F	DIRECTION OF EXIT (UP, DOWN OR HORIZONTAL)
DATA AT EXIT CONDITIONS: →	FLOW (ACTUAL FT^3/MIN.)	VELOCITY (FT/SEC)	MOISTURE ($GRAINS/FT^3$)		MOISTURE (PERCENT)
DATA AT STANDARD CONDITIONS: →	FLOW (DRY STD. FT^3/MIN)	VELOCITY (FT/SEC)	MOISTURE ($GRAINS/FT^3$)		MOISTURE (PERCENT)

8. AIR CONTAMINANTS	ACTUAL EMISSIONS						
	EMISSIONS (LBS/HR)		CONCENTRATION	AVG. EMISSIONS (TONS/YR)	EMISSIONS* EST. METHOD	CONTROL DEVICES*	CONTROL EFFICIENCY%
	AVERAGE	MAXIMUM					
PARTICULATES			**		0		
SULFUR DIOXIDE			***		0		
CARBON MONOXIDE			PPM		0		
ORGANIC COMPOUNDS	.98	.98	PPM	1.02	2	000	0
NITROGEN OXIDES			PPM		0		
FLUORIDES					0		
OTHER(SPECIFY)							
OTHER(SPECIFY)							

(OVER)

9. CHECK TYPES OF MONITORING AND RECORDING INSTRUMENTS THAT ARE ATTACHED:
OPACITY MONITOR ( ), SO2 MONITOR ( ), NOX MONITOR ( ), OTHER (SPECIFY IN COMMENTS) ( )

10. COMMENTS

11. SIGNATURE	**DATE**
David L Gilbert	3/11/2008

* REFER TO THE BACK OF THE PERMIT APPLICATION FORM FOR ESTIMATION METHOD AND CONTROL DEVICE CODES.

** EXIT GAS PARTICULATE CONCENTRATION UNITS: PROCESS — GRAINS/DRY STANDARD FT3 (70°F); WOOD FIRED BOILERS — GRAINS/DRY STANDARD FT3 (70°F); ALL OTHER BOILERS — LBS/MILLION BTU HEAT INPUT.

*** EXIT GAS SULFUR DIOXIDE CONCENTRATIONS UNITS: PROCESS — PPM BY VOLUME, DRY BASES; BOILERS — LBS/MILLION BTU HEAT INPUT.